

Patent Abstracts of Japan

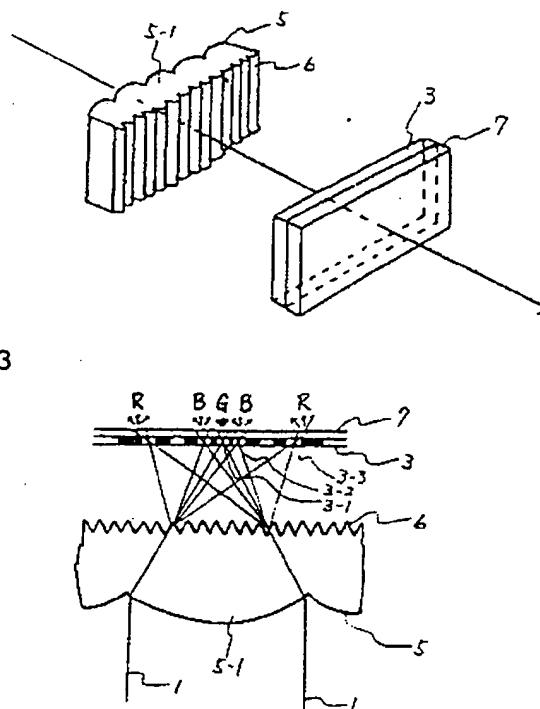
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 PATENTEE : CANON INC  
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TITLE : COLOR DISPLAY DEVICE



ABSTRACT : PURPOSE: To obtain a color display device characterized by high light utilizing efficiency, low power consumption, high brightness, and excellent color reproducibility by utilizing a diffraction grating and a light valve.  
 CONSTITUTION: White light beams 1 are condensed by a lenticular plate 5 and a large part of energy is concentrated into 0-th order + or -1st order diffracted beams led into a light valve part 3 by specifying the grating pitches of the diffraction grating 6, a phase change value and so on. Namely, a green wavelength area with high relative luminous efficiency out of the white light beams 1 is converted into the 0-th order beam and blue and red wavelength areas other than said area are converted into the + or -1st order beams. The light valve part 3 is arranged so that spectrum beams of red R, green G and blue B components of the 0-th order diffracted beams and respective + or -1st order diffracted beams are made incident upon three light valves 3-1-3-3 corresponding to at least one picture element in the train direction of one picture element train in an area distributing the spectrum beams and a douser to interrupt the transmission of the light beams is arranged in area for concentrating the + or -1st order diffracted beams or + or -2nd order or more diffracted beams of the green component.